

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-20. (Cancelled)

21. (Currently Amended) A recombinant fusion protein monomer comprising:

- (i) a binding domain for binding a target molecule, wherein the binding domain is an antibody, ~~a ligand or a receptor~~ that binds to a cell-surface antigen;
- (ii) a functional group domain for eliciting a desired effect on the target molecule, wherein the functional group is an enzyme; and
- (iii) an extension peptide located between said binding domain and said functional group domain and containing one ~~or more~~ uncoupled cysteine residue ~~residues~~ capable of forming a disulfide bond ~~bonds~~ for dimerization,

wherein

the extension peptide has a sequence represented by

(S/A)KPSI(S/A)T(K/Q)AS(G₄S)_nGGPE, which is SEQ ID NO: 13, wherein (n) is an integer ranging from 0 to 8, wherein one of amino acid at fourth, fifteenth, twenty-fifth or thirty-fifth amino acid residue position from said binding domain is substituted with cysteine residue capable of forming a disulfide bond ~~the one or more uncoupled cysteine residues are located at any position in the range of the first to forty-fifth amino acid residue from said binding domain directly bonded to either the first or last amino acid residue of the extension peptide and wherein one uncoupled cysteine is located at the fourth amino acid position of the forty-five amino acids; optionally further comprising (a) a peptide linker consisting of 1 to 50 amino acid residues inserted between the functional group domain and the uncoupled cysteine residue which is closest to said functional group domain; or (b) an affinity domain for homo- or hetero-multimerization, located between the peptide optional linker and the uncoupled cysteine residue which is closest to the functional group domain.~~

22-30. (Cancelled)

31. (Currently Amended) A covalent homodimer ~~or heterodimer~~ formed between two recombinant fusion protein monomers of claim 21 connected via ~~at least one intermolecular a~~ disulfide bond between the ~~one or more uncoupled cysteine residues from each said recombinant fusion protein monomer.~~

32-35. (Cancelled)

36. (Currently Amended) The ~~homo or heterodimer~~ recombinant fusion protein monomer according to claim [[35]] 21, wherein the binding domain fragment is an F_{ab}.

37-52. (Canceled)

53. (Previously Presented) The recombinant fusion protein monomer of claim 21, wherein the enzyme is a protein containing a toxin-functional group.

54. (Previously Presented) The recombinant fusion protein monomer of claim 53, wherein the protein containing a toxin-functional group is Pseudomonas exotoxin A.

55. (Canceled)